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# A New Species of the Genus *Tulipa* (Liliaceae) from China

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**ABSTRACT.** *Tulipa mongolica* Y. Z. Zhao (Liliaceae) is described from Inner Mongolia, China. The new species is distinguished by its filaments 2.5–3.0 times as long as the anthers. It is related to *T. heteropetala* Ledebour on the basis of its filaments widened from the mid-point down, narrowing on both sides of the filament.

**Key words:** China, Inner Mongolia, Liliaceae, *Tulipa*.

The genus *Tulipa* L. contains about 150 species, about 14 of which are found in China. Among these there is only one species in Mongolia and Inner Mongolia. The two species *Tulipa heteropetala* and *Tulipa uniflora* (L.) Besser ex Baker have the closest relationship with this new species. The distribution of *Tulipa heteropetala* is in the north of Xinjiang, Siberia, and Central Asia. *Tulipa uniflora* occurs in Siberia and Central Asia.

The new species was referred to *Tulipa heteropetala* in Mao (1980) and *Tulipa uniflora* in Ninbu (1994). After comparing the features among these three species of *Tulipa* the author thought this species was new to science.

The new species was distributed solitarily over a sandy crack of volcanic cone in the XilinGol Meng of Inner Mongolia. The species is now extinct at the type locality because of heavy grazing pressure.

***Tulipa mongolica*** Y. Z. Zhao, sp. nov. TYPE: China. Inner Mongolia: XilinGol Meng, Baiyinxile, 20 May 1979, *Shu-run Liu* 395 (holotype, HIMC; isotypes, HIMC). Figure 1A–C.

Haec species *T. heteropetalae* Ledebour affinis, sed ab ea perianthii segmentis internis oblongo-obovatis, 2.5–4.5 cm longis apice acutis; filamentis 2.5–3.0-plo longioribus quam antheris atque pistillo longiore quam staminibus differt.

Perennial, 10–25 cm tall. Bulb ovate, 1–2 cm diam.; skin of bulb papery, dark brown, pubescent on inner surface; stem glabrous. Leaves 2, closely alternate, narrowly lanceolate, 8–11 cm long, 4–9 mm wide, often curved outward, glabrous. Flower single, terminal; perianth segments 6, in two series of 3, yellow, 2.5–4.5 cm long, 4–8 mm wide, apices

acute; outer perianth segments 3, narrowly oblanceolate, externally green-purple; inner perianth 3, oblong-obovate, same length as above, 8–15 mm wide; stamens 6, in two series with 3 long, to 2.4 cm, and 3 short, to 2.2 cm long; filaments 2.5–3.0 times as long as anthers, yellow, glabrous, widened below their mid-point, gradually narrowed toward both sides; anther yellow, narrowly oblong, 4–6 mm long; pistil exceeding the stamens; style 1 cm long. Fruit and seed not found.

**Habitat.** On stony hillside fields.

**Distribution.** Inner Mongolia, XilinGol Meng, Baiyinxile.

**Paratype.** CHINA. **Inner Mongolia:** same locality as type collection, 8 May 1965, *Zhi-jie Xu* 413 (HIMC).

The chief morphological differences between the new species and two similar species are summarized in the following key couplet. The three species of *Tulipa* also share in common a yellow flower, long style, and pubescence on the top of the inner skin of the bulb.

## KEY TO THE THREE *TULIPA* SPECIES IN INNER MONGOLIA, CHINA

- 1a. Only the base of the filaments of stamens widened, narrowing to the apex . . . . .  
. . . . . 1. *T. uniflora* (L.) Besser ex Baker
- 1b. Filaments widened from the mid-point down, then narrowing on both sides of the filament.
  - 2a. Stamen filaments equal in length to anthers or slightly longer; pistil shorter than stamens; inner perianth ovate to rhombic, 2–2.5 cm long, apex acuminate; leaves 2, loosely separate . . . . .  
. . . . . 2. *T. heteropetala* Ledebour
  - 2b. Stamen filaments 2.5–3.0 times as long as anther; pistil longer than stamens; inner perianth oblong to obovate, 2.5–4.5 cm long, apex acute; leaves 2, closely alternate . . . . .  
. . . . . 3. *T. mongolica* Y. Z. Zhao

**Paratype.** CHINA. **Inner Mongolia:** XilinGol Meng, Baiyinxile, 8 May 1965, *Zhi-jie Xu* 413 (HIMC).

## Literature Cited

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Figure 1. *Tulipa mongolica* Y. Z. Zhao. —A. Plant. —B. Skin of bulb. —C. Part of flower.